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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/596,003	06/15/2000	Lior Shabtay	1-1-1-6	1200

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EXAMINER

FOX, JAMAL A

ART UNIT PAPER NUMBER

2664

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/596,003

Applicant(s)

SHABTAY ET AL.

Examiner

Jamal A. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-80 is/are pending in the application.
- 4a) Of the above claim(s) 45-48, 55, 60, 61, 70-72, 74, 76 and 78-80 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-36, 41-44, 56-59, 62-69, 73 and 77 is/are allowed.
- 6) ☒ Claim(s) 37-40, 49, 51 and 75 is/are rejected.
- 7) ☒ Claim(s) 50, 52 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 37-40, 49, 51 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al.

Referring to claim 37, Ross et al. discloses a method of performing policy enforcement by a switch, comprising: receiving a plurality of frames (col. 4 lines 65-67); comparing (flow label, col. 5 lines 5-10) the values of one or more fields (Fig. 4) of the determined frames to respective fields of entries of the list; and forwarding, discarding (deny, col. 5 lines 23-30) or further analyzing frames determined not to be compared, but does not explicitly teach of determining whether to compare the values of one or more fields of at least some of the plurality of frames to entries of a list of policies of groups of frames. However, determining based on the rule elements loaded into the CAM, the comparing will either match a CAM entry or not is disclosed in (col. 5 lines 10-14). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included determining whether to compare the values of one or more fields of at least some of the plurality of frames to entries of a list

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of policies of groups of frames because it is part of a rule-based routing or switching decision process (col. 6 lines 1-4) such as ACL processing as suggested by Ross et al.

Referring to claim 38, Ross et al. discloses a method according to claim 37, wherein determining whether to compare comprises determining based on the physical port from which the frame was received (col. 8 lines 11-31 and col. 10 line 52-col. 11 line 3).

Referring to claim 39, Ross et al. discloses a method according to claim 37, wherein determining whether to compare comprises determining based on the protocol of the frame (col. 13 lines 50-60).

Referring to claim 40, Ross et al. discloses a method according to claim 37, wherein further analyzing comprises transferring to a processor of the switch (DBus, col. 7 lines 55-67).

Referring to claim 49, Ross et al. discloses a method of performing policy enforcement by a switch, comprising: receiving a plurality of frames; comparing at least some of the received frames to a list of groups of frames and respective policies (col. 5 lines 7-22); but does not explicitly teach of creating entries in the list for less than all of the compared frames for which no match was found in the comparison to the list (col. 5 lines 23-30). However, entries that were created for some of the compared frames are disclosed in (col. 25 line 61-col. 26 line 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included creating entries in the list for less than all of the compared frames for which no match

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was found in the comparison to the list in order to provide for additional level of flexibility for rule element checking as suggested by Ross et al.

Referring to claim 51, Ross et al. discloses a method according to claim 49, but does not explicitly teach wherein creating entries in the list for less than all of the compared frames comprises creating entries only for frames belonging to connectionless protocols. However, Ross et al. discloses UDP, which is a connectionless protocol in (col. 13 line 65-col. 14 line 63). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included creating entries in the list for less than all of the compared frames comprises creating entries only for frames belonging to connectionless protocols because ACLs give you the ability to specify which protocols and/or frames to permit or deny as suggested by Ross et al.

Referring to claim 54, Ross et al. discloses a method according to claim 49, but does not explicitly teach of comprising determining for compared frames, a probability that additional frames of the same session will be received by the switch and creating entries only for frames with a probability higher than a determined level. However, Ross et al. discloses pre-processing of the elements of the flow label (col. 7 lines 40-52) and a Layer 4 Mapping Unit (col. 8 lines 11-63), which provides logical operations. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included comprising determining for compared frames, a probability that additional frames of the same session will be received by the switch and creating entries only for frames with a probability higher than a determined level in

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order to prevent multiple entries in a CAM that apply to a given complex rule so that CAM size is limited and cost of the device stays minimal as suggested by Ross et al.

3. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zaumen et al in view of Ross et al.

Referring to claim 75, Zaumen et al. discloses a method of updating a policy table (Fig. 2) of a switch, comprising: receiving (newly arrived packet at the subsystem 110, col. 5 lines 40-45) a frame which is not directed to the switch; and performing layer-2 switching of the received frame (col. 5 lines 25-39 and col. 3 lines 35-45), but does not explicitly teach of creating an entry in the policy table of the switch, for the session to which the received frame belongs and determining whether the received frame requires non-default policy enforcement comprises checking whether the frame violates security rules. However, entries in the address table are disclosed in (col. 6 lines 33-37). Furthermore, Ross et al. discloses security rules (ACL, col. 2 lines 26-38). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included creating an entry in the policy table of switch, for the session to which the received frame belongs because entries have to be created in order to define flow membership as suggested by Zaumen et al. It would have been further obvious to one have ordinary skill in the art at the time the invention was made to have included the security rules of Ross et al. to the invention of Zaumen et al. in order for the CAM to enhance the efficiency of rule processing by providing an additional level of flexibility for rule element checking as suggested by Ross et al.

Response to Arguments

4. Applicant's arguments filed 5/5/2005 have been fully considered but they are not persuasive.

5. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation is found in Zaumen et al. (col. 6 lines 33-37) and Ross et al. (col. 18 lines 7-10).

6. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argued that the rejection fails to address why one skilled in the art would be motivated to modify Ross to include an additional process step comprising determining whether to make a comparison as required under the MPEP and under case law from the Federal Circuit. However, one skilled in the art would be motivated to modify Ross to include the step comprising determining whether to compare the values

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of one or more fields of at least some of the plurality of frame entries to the entries of a list of policies of groups of frames because it is part of a rule-based routing or switching decision process (col. 6 lines 1-4) such as ACL processing as suggested by Ross et al. Furthermore, Ross et al. does not suggest or teach that the decision process is always performed as stated by the applicant. Therefore, Ross et al. does not teach away from the claimed invention as suggested by the applicant.

Allowable Subject Matter

7. Claims 1-36, 41-44, 56-59 and 62-69, 73 and 77 are allowed.
8. Claims 50, 52 and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. **Any response to this final action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300, (for formal communications intended for entry)

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (571) 272-3143. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

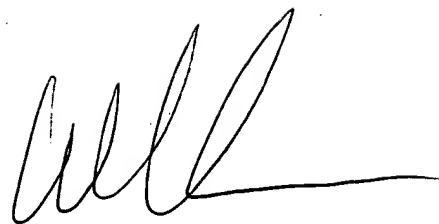
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to 2600 Customer Service whose telephone number is (571) 272-2600.

A handwritten signature in black ink, appearing to read 'Jamal A. Fox', with a stylized flourish at the end.

Jamal A. Fox

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A handwritten signature in black ink, consisting of stylized cursive letters, likely 'W. Chin', followed by a horizontal line.

WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER